

NOTES AND OBSERVATIONS ON THE WILSON'S WARBLER

BY HAL H. HARRISON

SURPRISINGLY little has been written about the breeding habits of the well-known Wilson's or Black-capped Warbler, *Wilsonia pusilla*. Though its nest has been found many times no one seems to have ascertained the length of its incubation and fledging periods, and very little attention has been paid to its behavior at the nest. A possible reason for this dearth of data is that the nests and eggs have been so desirable as specimens that they have been collected rather than observed.

A brief early account of the nest of the eastern race, *W. p. pusilla*, was that of Fred B. Spaulding (1894), who collected four fresh eggs on June 6, 1894, near Lancaster, New Hampshire. J. Merton Swain (1904) reported at somewhat greater length on nests found in Maine, illustrating his paper with two photographs taken June 1, 1902, of the same nest in Hermon Bog, Penobscot County. One picture showed the female bird incubating, the other the five eggs. Chapman (1907: 277) briefly discussed the species' breeding habits, mentioning nests of *W. p. pusilla* reported by Spaulding from New Hampshire and by Swain and Morrell from Maine. Knight (1908: 565-570) gave an extended account of the bird's occurrence in Maine, mentioning several summer records. Austin (1932: 181) considered the species "not uncommon as a summer resident in the wooded regions from Hamilton Inlet south" in Labrador, but did not say a word as to its nesting habits. Baillie and Harrington (1937: 254) mentioned a nest with five "incubated" eggs collected June 14, 1936 in the Sudbury District of Ontario.

As to the summer range of *Wilsonia p. pusilla* in Maine, Palmer (1949: 494) wrote: "... fairly common in eastern parts of Piscataquis and Aroostook Counties, and in Penobscot, Hancock, and Washington Counties (common about Bangor and in eastern Washington County), and apparently rare elsewhere inland." Palmer gave a complete summary of the breeding data actually available for the State, mentioning the nest with five eggs found in Hermon Bog on June 1, 1902 (see above); a nest with four heavily incubated eggs found at Pittsfield, Somerset County, June 4, 1897; a nest with four "nearly fresh" eggs found at Pittsfield, June 12, 1892; a nest with four fresh eggs found near Bangor on June 19, 1900; a nest with four young just leaving, observed near Bangor about June 29, 1900; a young bird barely able to fly, at Fort Fairfield, Aroostook County, June 23, 1879; and "a pair of adults, the female carrying food," observed at Ellsworth, Hancock County, June 9, 1910.

The breeding habits of the western races appear to be little, if any, better known than those of the eastern race. *W. p. pileolata*, the so-called Pileolated Warbler, breeds from the shrubby borders of the tundra in Alaska southward in the Rocky Mountains (at progressively higher elevations) as far as New Mexico, eastern California, and central western Texas. Herbert Brandt (1943: 440) described five Alaska nests, each with *six* eggs. Florence M. Bailey (1928: 632) reported a nest with five fresh eggs found June 5, 1921 in Santa Fe Canyon, near Monument Rock, New Mexico. Cooke (1900: 220) mentioned a nest and eggs taken along the eastern side of South Park, Colorado, July 3, 1878. McCreary (1939: 90) recorded a nest with five eggs found near Towner Lake, Wyoming, June 27, 1931. Saunders (1921: 152) reported two nests from Montana—one with four much-incubated eggs, June 24, 1901,

at Lake MacDonald, Missoula County; the other with five eggs, June 16, 1910, in Pipestone Basin, Jefferson County.

Concerning the habits of the Golden Pileolated Warbler, *W. p. chryseola*, a Pacific coast subspecies which breeds from southern British Columbia to southern California, little seems to have been written, though the bird is common in parts of Oregon and California. Barlow (1893) who discussed nests found in California, almost certainly was writing of *chryseola*, which had not yet been described. Gabrielson and Jewett (1940: 517) mentioned a nest and four much-incubated eggs collected at Linton, Multnomah County, Oregon, on June 17, 1917. Leupold (1946) wrote briefly of a nest and four eggs found July 20, 1945, near Hidden Lake, on the southwestern slope of Mt. Hood, Oregon, at an elevation of about 4000 feet. Dawson (1923: 515-517), who considered *chryseola* one of the commonest breeding birds of the coastal part of Humboldt County, California, called attention to its preference for blackberry thickets in the Monterey district and for willow-lined streams near San Diego, and expressed suspicion that it might rear "two broods, possibly at different levels" in a season.

In the summer of 1950 I had an excellent opportunity to add to our knowledge of the life history of the 'little Black-cap' when Ralph H. Long, Jr., of South Paris, Maine, and I visited an area inhabited by several pairs of the birds in Hancock County, Maine. This particular habitat had been discovered some years ago by James Bond, of the Academy of Natural Sciences in Philadelphia, and it was he who suggested that we look for nests there. A place which seemed to be especially favored by the birds bordered a wet swale along U. S. Route 1 near the boundary between the towns of Hancock and Ellsworth. Several males were singing thereabouts.

On June 24, Long and I went to this area determined to find a nest. As we tramped about we noted that the Alder Flycatcher (*Empidonax traillii*), Chestnut-sided Warbler (*Dendroica pensylvanica*), Yellow-throat (*Geothlypis*



Alder swale nesting habitat of Wilson's Warbler along U. S. Route 1, Hancock County, Maine. Photographed July 13, 1950, by Hal H. Harrison.

trichas), Nashville Warbler (*Vermivora ruficapilla*), Purple Finch (*Carpodacus purpureus*) and White-throated Sparrow (*Zonotrichia albicollis*) all seemed to be rather common in the vicinity.

Happening to notice a Wilson's Warbler with a dry leaf in its bill, we watched it take this leaf to a spot about twenty feet from us, disappear momentarily into the low-growing vegetation, and fly off with empty bill. Going directly to the spot, we found a partly built nest. It was at the base of a blackberry bush, well concealed by the surrounding grass and leafage. It was not in the swale proper but in a dry spot to one side. We noted that the leaf had been added to others forming the foundation. A tiny cup of dry grasses was already under construction on top of and among the dry leaves. Several times we watched the bird (presumably the female, though its black cap was quite distinct) bring material to the nest. She brought grasses as well as small leaves. Her visits to the nest were short. Her mate was attentive, but we did not see him gather any material or participate in the nest construction. Indeed, we did not observe him at the nest at all during the building process though he sang frequently as the female came and went. His singing-perches seemed to be the tops of alders and tamaracks at various distances (a few yards to several rods) from the nest.

To me his chattering song sounded very similar to that of the Nashville Warbler. It was two-parted, but each part was of equal length whereas the two parts of the Nashville's song were not equal in length, the first part being the shorter. The song of the Wilson's seemed to lack the volume of the Nashville's and was harder to detect at a distance.

About two hundred yards from the nest we heard a second male Wilson's Warbler singing, and across the highway, again in a similar habitat, there was a third. It seemed evident to us that this particular area was so attractive to the species that a concentration of breeding pairs, almost a colony, had established itself there.

We made our second visit to the nest on the evening of June 28 (four days later) finding one egg in it. We did not see or hear either the male or the female on that date and the other Wilson's Warblers of the area were quiet also.

When we visited the nest at 4 p.m. on July 1, the female was incubating four eggs. She left the nest at our approach, drooping and rapidly fluttering her wings as she moved slowly from branch to branch among the alders, retreating in the direction of the swale. As soon as we withdrew, she returned to the nest.

We visited the nest again at 7:30 p.m., July 11. This time the female sat very close, permitting us almost to touch her before she left. The four eggs were apparently in good order.

At 8 o'clock the next evening (July 12) the nest contained three young birds and one egg. The incubation period of three of the eggs had been at the very

least ten days and about four hours (4 p.m. July 1 to shortly after 7:30 p.m. July 11) and at most 12 days (about 8 p.m. June 30 to shortly before 8 p.m. July 12). The female probably spent the night of June 30 on the nest, laid her fourth egg the following morning, and continued her incubation until the hatching. Early on the morning of July 13 we found four young birds in the nest, but one was dead under the other three. We removed the dead bird.



Female Wilson's Warbler on nest. Photographed in Hancock County, Maine, on July 13, 1950, by Hal H. Harrison.

We spent eight hours that day taking photographs from a blind erected ten feet from the nest. The weather was extremely hot and the female brooded much of the time. Occasionally the male went to the nest; but usually when he approached with food the female left the nest and went to meet him, took the food from him, and fed the young herself. Whenever she left the nest for several minutes she brought food on her return. Both parent birds occasionally fluttered their wings rapidly as if the camera, blind or photographer had roused their suspicion. The female seemed to be much more wary than her mate.

Our next visit to the nest was on July 18, when the young were six days old. They were covered with quills which appeared to be ready to break. We noted that the male parent was no longer singing. Both parent birds were silent as they went about the task of bringing food to the young.

On July 19, when the young birds were seven days old, they seemed to be well feathered. They crouched low in the nest. When we disturbed them in attempting to take pictures one of them scrambled rapidly off. Though apparently unable to fly it was strong on its legs. The other two young birds remained in the nest.

On the afternoon of July 20 the two young (now eight days old) were still in the nest. The parent birds chipped loudly in protest as we approached and attempted further photography, and all at once the young bolted. Keeping to the ground, and apparently unable to fly, they made off through the undergrowth. Had we not disturbed them they certainly would have remained longer—but how much longer no one can say. They were fairly well feathered, but not yet fully fledged.

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